

REMARKS/ARGUMENTS

This case has been carefully reviewed and analyzed in view of the Office Action dated 12 July 2007. Responsive to the rejections made in the Office Action, Claims 1 and 10 have been amended. Claim 14 has been amended to correct an informality. It is believed that with such amendment of Claims, there is further clarification of the recitations of pending Claim 1. Further, no new matter has been introduced into the Application.

In the Office Action, the Examiner rejected Claim 10 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Accordingly, Claim 10 has been amended to provide the necessary clarifications thereto. It is now believed that the Claims particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

In the Office Action, the Examiner rejected Claims 1 and 10-15 under 35 U.S.C. § 103(a) as being unpatentable over Gaines, et al., U.S. Patent No. 3,058,863, in view of Anderson, U.S. Patent No. 3,075,864, further in view of Irion, et al., U.S. Patent No. 2,714,571, and still further in view of Roys, et al., U.S. Patent No. 6,284,183. Claims 3 and 6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Gaines, et al., Anderson, et al., Irion, et al., and Roys, et al. as applied to Claim 1 above, and further in view of Stahle, et al., U.S. Patent No. 5,187,005. Moreover, the Examiner rejected Claim 7 under 35 U.S.C.

§ 103(a) as being unpatentable over Gaines, et al., Anderson, et al., Irion, et al., and Roys, et al., and further in view of Klosiewicz, U.S. Patent No. 6,432,496. Further, the Examiner rejected Claims 8 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Gaines, et al., Anderson, et al., Irion, et al., Roys, et al., and further in view of Wevers, et al., U.S. Patent Application Publication No. 2005/0106965.

Before discussing the prior art relied upon by the Examiner, it is believed beneficial to first briefly review the structure of the invention of the subject Patent Application, as now claimed. The invention of the subject Patent Application is directed to a method for manufacturing or forming a laminate synthetic leather. A method for manufacturing or forming the laminate synthetic leather includes providing a carrier roller (4) and engaging a textile carrier (2) onto the carrier roller (4). The method includes providing and disposing a lamination roll (8) close to the carrier roller (4) and adjusting an angular position of said carrier roller (4) relative to the lamination roller (8). The method further includes providing an extruder machine (5) to extrude a material into a film (1) downwardly feeding the film onto the lamination roller (8) to have the film carried on a segment (83) of an outer peripheral portion of the lamination roller (8) and to have the film (1) to be suitably cooled by the lamination roller (8). The segment (83) having two ends (84, 85) including a first end (84) is disposed where the film (1) begins to contact the lamination roller (8) at 89° with respect to the horizontal plane formed at the

point where both the lamination roller (8) and carrier roller (4) meet. The second end (85) is disposed where the film (1) begins to contact the carrier roller (4) and leaving the lamination roller (8) at approximately 1° with respect to the horizontal plane formed at the point where both the lamination roller (8) and carrier roller (4) meet, whereby the film (1) contacts the lamination roller (8) over a sufficient segment (83) of the lamination roller (8) to provide a substantially constant thickness of the film (1). The method further includes providing a passage in the lamination roller (8) and feeding a cooling fluid through the passage of the lamination roller (8) to cool the lamination roller (8) and to cool the film (1) when the film (1) is carried on this segment (83) of the outer portion of the lamination roller (8). Moreover, the method for forming the synthetic leather includes compressing the film (1) and the textile carrier (2) together with the carrier roller (4) and the lamination roller (8) to form the laminated synthetic leather (3) in order to prevent the film (1) from being completely penetrated into the textile carrier.

The soft film coating comes out of the extruder machine because of the gravitational force. The soft film coating then begins to lay on the segment (83) of the lamination roller (8), where the material is placed on the lamination roller (8) forming a uniform thickness along the film (1) as it slides down the lamination roller (8). The segment (83) on the lamination roller (8) allows the soft film coating to have uniform thickness because of the time and space that is given for the material to evenly distribute itself on the lamination roller (8). Once the film

contacts or engages with the carrier roller (4), the film material (1) and the textile carrier (2) as the method provided in the Specification resulting in both materials sticking to each other and forming a laminated synthetic leather material (3). This procedure allows for a soft film coating (1) to have a uniform distributed thickness by preventing the film having a different thickness along the entire roll of material.

It is respectfully submitted that the Gaines, et al. reference discloses in Fig. 1 a polyethylene (2) is hot extruded from an extrusion die (1) as a continuous sheet (4) through the die orifice (3). The film (4) is stretched and while still in a heat-softened state, it is brought into pressure contact with a fibrous polyalkylene fabric (9) between the nip (5) of the two rolls (10, 11) where the fabric (9) and the film (4) are pressed together and simultaneously cooled as they pass through the nip (5). Roll (10), making direct contact with the polyethylene film (4) rotates on a fixed axis, is water cooled and has a metal surface, which may be polished, or matted, or engraved. The films are directly squeezed together between the rollers giving it no time to uniformly distribute the thickness material along the roller.

The Gaines, et al. does provide for a method for manufacturing polyethylene structures using two rollers. However, the Gaines, et al. reference is not directed to a system where the film carried on a segment of an outer peripheral portion of the lamination roller that the segment having two ends in which the first end is disposed having the film beginning to contact the lamination roller at substantially 89 degrees with respect to the horizontal plane formed at the point

where both the lamination roller and carrier roller meet. The second end is disposed where the film begins to contact the carrier roller and leaving the lamination roller at approximately 1° with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller meet, whereby the film contacts the lamination roller over a sufficient segment of the lamination roller to provide a substantially constant thickness of the film. Thus, the Gaines, et al. reference does not provide for: "... a segment of an outer peripheral portion of said lamination roller ... said segment having two ends, first end disposed where the film begins to contact the lamination roller at substantially 89 degrees with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller meet ...", nor does it provide for: "... the second end disposed where the film begins to contact the carrier roller and leaving the lamination roller at approximately 1 degree with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller meet ... whereby said film contacts said lamination roller over a sufficient segment of the lamination roller to provide a substantially constant thickness of said film ...", as is clearly seen in now amended Claim 1. Thus, the Gaines, et al. reference does not provide for the elements as provided in now amended Claim 1 for the objects and purposes of the subject Patent Application.

The Anderson reference does not overcome the deficiencies of the Gaines, et al. reference. The Anderson reference is directed to a web of impervious base

material (10) where it is fed from a supply roll (17) to the nip formed between a pair of rolls (18, 19). The roll (19) is a chilled roll, preferably formed of material and cooled by passing cold water through it. A thin stream of hot molten polyethylene (20) extruded from the extrusion nozzle (21) of a standard film extruding apparatus onto the surface of the chilled roll (19) in the nip between rolls (18, 19) before coming into contact with the impervious base web. The polyethylene film is then pressed onto the web as it passes between rolls (18, 19). Thus, as previously discussed for the Gaines, et al. reference, the Anderson reference fails to disclose or suggest a segment of an outer peripheral portion of said lamination roll ... said segment having two ends, a first end disposed where the film begins to contact with the lamination roller at substantially 89 degrees with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller meet, the second end disposed where the film begins to contact the carrier roller and leaving the lamination roller at approximately 1 degree with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller sheet meet, whereby said film contacts said lamination roller over a sufficient segment of the lamination roller to provide a substantially constant thickness of said film, as now claimed in independent Claim 1.

As neither Gaines, et al. nor Anderson references disclose or suggest the concatenation of elements that form the instant invention, as now claimed, it is not

believed that they make unpatentable that invention. In fact, both Gaines, et al. and Anderson each teach away from the structure of the invention of the subject Patent Application as now defined in amended Claim 1.

The Irion, et al. reference is directed to the web of backing material (10) from a feed roll (11) is passed between a pair of counter-rotating rolls (12, 13). The molten polyethylene (14) under pressure is supplied in extrusion chamber (15). The deposited film and backing web (10) thereupon pass between the rolls (12, 13) and the backing web is impregnated with the molten polyethylene. But nowhere does the Iron, et al reference disclose or suggest said segment having two ends, a first two ends disposed where the film begins to contact with the lamination roller at substantially 89 degrees with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller meet, the second end disposed where the film begins to contact the carrier roller and leaving the lamination roller approximately at 1 degree with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller meet, whereby said film contacts said lamination roller over a sufficient segment of the lamination roller to provide a substantially constant thickness of said film, as now claimed.

The Gaines, et al. reference combined with the Anderson, as previously discussed, does not overcome the deficiencies of Irion, et al. Therefore, the

combination of Gaines, et al., Anderson, and Irion, et al. is not believed to make obvious the present invention as now defined in Claim 1.

The Roys, et al. reference does not overcome the deficiencies of the references discussed above. The Roys, et al. reference is directed to an exterior automotive quality paint film as applied to a polymeric substrate sheet by a combination of steps which include forming a dry paint transfer film of exterior automotive quality, transferring the dry paint film to a thin supporting backing sheet. Laminating the resulting is preformed dry paint film laminate and extruded thick substrate sheet of thermoformable polymeric backing sheet producing a paint coated laminate in the shape of a finished part. Thus, the Roys, et al. reference fails to disclose or suggest said segment having two ends, a first end disposed where the film begins to contact with the lamination roller at substantially 89 degrees with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller meet, the second end disposed where the film begins to contact the carrier roller and leaving the lamination roller at approximately 1 degree with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller meet, whereby said film contacts said lamination roller over a sufficient segment of the lamination roller to provide a substantially constant thickness of said film, as now claimed.

The Stahle, et al. reference does not overcome the deficiencies of the references discussed above. Stahle, et al. reference is directed to the self-bonded

nonwoven web and woven fabric composite. The composite comprises at least one layer of a uniform basis weight self-bonded, fibrous, nonwoven web having a plurality of substantially randomly disposed, substantially continuous thermoplastic filaments. The web is adhered to at least one layer of woven thermoplastic yarns in the form of a woven fabric such as a soft side luggage fabric, a wall covering fabric, or a leno weave fabric and thus fails to disclose or suggest said segment having two ends, a first end disposed where the film begins to contact with the lamination roller at substantially 89 degrees with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller meet, the second end disposed where the film begins to contact the carrier roller and leaving the lamination roller at approximately 1 degree with respect to the horizontal plane formed at the point where both the lamination roller and carrier roller meet, whereby said film contacts said lamination roller over a sufficient segment of the lamination roller to provide a substantially constant thickness of said roller, as now claimed.

Thus, as the references discussed above fail to disclose each and every one of the elements of the subject Patent Application, they certainly cannot anticipate the invention, as now claimed. Further, as the references fail to disclose or suggest each of the elements, they cannot make obvious the claimed invention.

Given such deficient teachings of the primarily-cited Gaines, et al., Anderson, Irion, et al., and Roys, et al. references, the secondarily-cited Stahle, et

al., Klosiewicz, and Wevers, et al. references are found to be quite ineffectual to the present patentability analysis. The Examiner cited each of these references for isolated features, however, each fails to remedy the deficiencies of the primarily-cited references. Therefore, even the combination of Gaines, et al., Anderson, Irion, et al., Roys, et al., Stahle, et al., Klosiewicz, and Wevers, et al. references are not believed to make obvious the invention of the subject Patent Application, as now defined by amended Claim 1.

The remaining references cited by the Examiner but not used in the rejection have been reviewed, but are believed to be further removed from the Applicant's invention, as defined in now amended Claims when taken with respect to the references used in the references.

The remaining Claims are all ultimately dependent upon now amended Claim 1 and are believed to patentable over the prior art for at least the same reasons as discussed above.

It is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

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No fees are believed to be due with this Amendment. If there are any charges associated with this filing, the Honorable Commissioner for Patents is hereby authorized to charge Deposit Account #18-2011 for such charges.

Respectfully submitted,
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